

BIOCHEMICAL AND BIOPHYSICAL Research Communications

EDITORS:

Pedro Cuatrecasas

Jean-Pierre Ebel

I. C. Gunsalus

B. L. Horecker

Boris Magasanik

William D. McElroy

Frederick C. Neidhardt

William D. Phillips

George K. Radda

Esmond E. Snell

Volume 117 • 1983



ACADEMIC PRESS

A Subsidiary of Harcourt Brace Jovanovich, Publishers

New York London

Paris San Diego San Francisco São Paulo Sydney Tokyo Toronto

Copyright © 1983 by Academic Press, Inc.

ALL RIGHTS RESERVED

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (21 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1983 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0006-291X/83 \$1.50

MADE IN THE UNITED STATES OF AMERICA

BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS

CONTENTS

Volume 117, Number 1, November 30, 1983

AUTHOR INDEX, Volume 117, Number 1, November 30, 1983	ii
A Specific Inhibitor of Type I DNA-Topoisomerase of <i>Trypanosoma cruzi</i> : Dimethyl-hydroxy-ellipticinium <i>Setha Douc-rasy, Alain Kayser, and Guy Riou</i>	1
Molecular Cloning and Expression in <i>Streptomyces lividans</i> of a Hygromycin B Phosphotransferase Gene from <i>Streptomyces hygrosopicus</i> <i>F. Malpartida, M. Zalacain, A. Jiménez, and J. Davies</i>	6
Increased Surface Binding Sites of Insulin in ML236B (Compactin)-Resistant Mutants of Chinese Hamster Cell Line <i>Yasufumi Sato, Akinori Masuda, Mayumi Ono, and Michihiko Kuwano</i>	13
Pseudo-inhibitors of Neutrophil Superoxide Production: Evidence that Soybean-Derived Polypeptides Are Superoxide Dismutases <i>Aaron S. Abramovitz, Jun-Yan Hong, and Verrell Randolph</i>	22
Coordinate Inhibition of DNA Synthesis and Thymidylate Synthase Activity following DNA Damage and Repair <i>Robert J. Boorstein and Arthur B. Pardee</i>	30
Fructose 2,6-Bisphosphate as a Contaminant of Commercially Obtained Fructose 6-Phosphate: Effect of PP_i : Fructose 6-Phosphate Phosphotransferase <i>Nicholas J. Kruger, Erich Kombrink, and Harry Beevers</i>	37
Ketoconazole Binds to the Intracellular Corticosteroid-Binding Protein in <i>Candida albicans</i> <i>E. Price Stover, David S. Loose, David A. Stevens, and David Feldman</i>	43
Glycosylation <i>in Vivo</i> of Human Lens Capsule (Basement Membrane) and Diabetes Mellitus <i>Shlomo S. Mandel, Dong H. Shin, Bruce L. Newman, Jin H. Lee, Aaron Lupovitch, and George H. N. Drakes</i>	51
Effect of Temperature on $ppp(A_2'p)_nA$ Binding Protein Activities in Rabbit Reticulocyte Lysates and Other Mammalian Extracts <i>Joseph M. Wu, Behruz Eslami, and Anthony R. Semproni</i>	57
Correspondency between Different Affinity States and Target Size of the Bovine Striatal D_2 Dopamine Receptor <i>Takayoshi Kuno and Chikako Tanaka</i>	65
Changes in Lung Hyaluronidase Activity Associated with Lung Growth, Injury, and Repair <i>Lyn A. Thet, Ann C. Howell, and Grace Han</i>	71
Insulinotropic Effect of the Tumor Promoter Teleocidin in Isolated Pancreatic Islets <i>Satoshi Yamamoto, Teruo Nakadate, Hirota Fujiki, and Ryuichi Kato</i>	78
$1\alpha,25$ -Dihydroxyvitamin D_3 Induces Differentiation of Human Promyelocytic Leukemia Cells (HL-60) into Monocyte-Macrophages, but Not into Granulocytes <i>Hirofumi Tanaka, Eisuko Abe, Chisato Miyaura, Yoshiko Shiina, and Tatsuo Suda</i>	86
Formation of Novel Nucleosides from Free Base and Sugar Phosphate: Aqueous Reaction of 2-Aminopyrimidine and Ribose 5-Phosphate <i>David C. Mace</i>	93
Mitochondrial DNA-Binding Proteins That Bind Preferentially to Supercoiled Molecules Containing the D-Loop Region of <i>Xenopus laevis</i> mtDNA <i>Bernard Mignotte, Monique Barat, Janine Marsault, and Jean-Claude Mounolou</i>	99
Benzolactams: A New Class of Converting Enzyme Inhibitors <i>W. H. Parsons, J. L. Davidson, D. Taub, S. D. Aster, E. D. Thorsett, A. A. Patchett, E. H. Ulm, and B. I. Lamont</i>	108
Isolation and Characterization of a Human Interleukin 2 Gene <i>Shuji Mita, Shuichiro Maeda, Kenshi Obaru, Naoki Nishino, Kazunori Shimada, Toshio Hirano, Kaoru Onoue, Tomoko Ogawa, and Hideyuki Ogawa</i>	114
Intracellular Free Calcium Concentrations in Isolated Pancreatic Acini: Effects of Secretagogues <i>D. L. Ochs, J. I. Korenbrot, and J. A. Williams</i>	122
Chemical Rearrangement of Phenol Epoxide Metabolites of Polycyclic Aromatic Hydrocarbons to Quinone Methides <i>Peter B. Hulbert and Philip L. Grover</i>	129
High PO_2 -Activated Inhibitor of Protein Synthesis in Rabbit Reticulocytes: Its Relationship to Glutathione Disulfide-Induced Inhibitor and to a $\sim 23,000 M_r$ Sulfhydryl Protein <i>G. Kanigür, B. Kan, D. Tiryaki, and E. Bernek</i>	135

Disorder in Human Myelin Induced by Superoxide Radical: An <i>in Vitro</i> Investigation <i>L. S. Chia, J. E. Thompson, and M. A. Moscarello</i>	141
Structure and Action of Sperm-Activating Peptides from the Egg Jelly of a Sea Urchin, <i>Anthocidaris crassispina</i> <i>Kohji Nomura, Norio Suzuki, Hideki Ohtake, and Saburo Isaka</i>	147
Inactivation of Regulatory Volume Decrease in Human Peripheral Blood Lymphocytes by <i>N</i> -Ethylmaleimide <i>J. Bauer and P. K. Lauf</i>	154
Low Infectivity of Vesicular Stomatitis Virus (VSV) Particles Released from Interferon- Treated Cells Is Related to Glycoprotein Deficiency <i>Radha K. Maheshwari, Mirza M. Husain, and Robert M. Friedman</i>	161
Effects of Chronic Ethanol Feeding and Acetaldehyde Metabolism on Calcium Transport by Rat Liver Mitochondria <i>Mark A. Korsten, Ellen R. Gordon, Jeffrey Klingenstein, and Charles S. Lieber</i>	169
Synthesis of a PDGF-like Growth Factor in Human Glioma and Sarcoma Cells Suggests the Expression of the Cellular Homolog to the Transforming Protein of Simian Sarcoma Virus <i>Christer Betsholtz, Carl-Henrik Heldin, Monica Nister, Bo Ek, Åke Wasteson, and Bengt Westermark</i>	176
Hydroperoxy Fatty Acid Formation in Selenium-Deficient Rat Platelets: Coupling of Glutathione Peroxidase to the Lipoxygenase Pathway <i>Robert W. Bryant, Theodore C. Simon, and J. Martyn Bailey</i>	183
The Temperature-Dependent Emission of Low-Frequency Sound by Motile Cultures of the Ciliate <i>Tetrahymena thermophila</i> <i>Robin J. Hill</i>	190
Diacylglycerol Potentiates Phospholipase Attack upon Phospholipid Bilayers: Possible Connection with Cell Stimulation <i>R. M. C. Dawson, N. L. Hemington, and R. F. Irvine</i>	196
Neutral Microprotein, a Novel Human Plasma and Urinary Protein Associated with a Yellow-Brown Chromophore: Isolation from Protein HC Preparations and Partial Characterization <i>C. López-Otin, A. O. Grubb, and E. Méndez</i>	202
Measurement of the Dissociation Constant of MgATP at Physiological Nucleotide Levels by a Combination of ^{31}P NMR and Optical Absorbance Spectroscopy <i>Raj K. Gupta, Pratima Gupta, Wasley D. Yushok, and Zeldia B. Rose</i>	210
Spermidine and Spermine Stimulate the Activity of T4-DNA Ligase <i>Hannu Pösö and Malla Kuosmanen</i>	217
Only One of the Two Signals Required for Initiation of the Cell Cycle Is Associated with Cellular Accumulation of Ribosomal RNA <i>Klaus Seuwen and Gerold Adam</i>	223
A Stopped-Flow Study of the Reaction between Mercuric Reductase and NADPH <i>Lena Sahlman and Sven Lindskog</i>	231
Inactivation of Carbamoyl Phosphate Synthetase (Ammonia) by Elastase as a Probe to Investigate Binding of the Substrates <i>Anna Maria Guadaluja, Vicente Rubio, and Santiago Grisolia</i>	238
ATP-Stimulated Accumulation of Calcium by Chromaffin Granules and Mitochondria from the Adrenal Medulla <i>Hermann R. K. v. Grafenstein and Eberhard Neumann</i>	245
The Effect of Uncoupler on the Distribution of the Electron Flow between the Terminal Acceptors Oxygen and Nitrite in the Cells of <i>Paracoccus denitrificans</i> <i>Igor Kučera and Vladimír Dadák</i>	252
Large-Scale Purification and Structural Properties of Yeast Aspartyl-tRNA Synthetase <i>B. Lorber, D. Kern, A. Dietrich, J. Gangloff, J. P. Ebel, and R. Giegé</i>	259
High-Pressure Liquid Chromatographic Separation of Multiple Forms of Cytochrome <i>P-450</i> <i>Surendra K. Bansal, John Love, and Hira L. Gurtoo</i>	268
Substrate-Induced H_2O_2 Production in Mycelia from the Lignin-Degrading Fungus <i>Phanerochaete chrysosporium</i> <i>Richard V. Greene and J. Michael Götzl</i>	275
Human Neutrophil Chemotactic and Degranulating Activities of Leukotriene B_5 (LTB_5) Derived from Eicosapentaenoic Acid <i>D. W. Goldman, W. C. Pickett, and E. J. Goetzl</i>	282
The Amidating Enzyme in Pituitary Will Accept a Peptide with C-Terminal D-Alanine as Substrate <i>A. E. N. Landymore-Lim, A. F. Bradbury, and D. G. Smyth</i>	289
Effects of Differentiation Inducers on Diphenylhexatriene Fluorescence Polarization in Intracytoplasmic and Plasma Membranes from Friend Erythroleukemia Cells <i>C. Billard, M. Billard, and Z. Mishal</i>	294

FAB Mapping of Recombinant DNA Protein Products	
Howard R. Morris, Maria Panico, and Graham W. Taylor	299
The Presence of the Milk Protein, α -Lactalbumin, and Its mRNA in the Rat Epididymis	
Pradman K. Qasba, Indira K. Hewlett, and Stephen Byers	306
Sodium Ion Modulates Collagen Types in Human Fibroblastic Cells in Culture	
Ryu-ichiro Hata, Hironobu Sunada, and Yutaka Nagai	313
Effect of α_1 -Proteinase Inhibitor and Sulfated Polysaccharides on the Activity of $m\beta$ -Acrosin	
William F. Long and Frank B. Williamson	319
Isolation and Characterization of the O-Glycan Chain of the Human Vitamin D Binding Protein	
M. Viau, J. Constans, H. Debray, and J. Montreuil	324
Identification of an M_r 77,000–80,000 Product of <i>in Vitro</i> Translation of Rat Liver mRNA Using Antibody to Glycogen Synthase	
Bruce R. Bahnak and Alvin H. Gold	332
A Synthetic Crown Ether Carboxylic Acid Ionophore Displays Synergistic Transport of Pr^{3+} in Conjunction with Lasalocid	
Richard A. Bartsch, Jean Grandjean, and Pierre Laszlo	340
Hemin Inhibits Transfer of Pre- δ -aminolevulinic Synthase into Chick Liver Mitochondria	
Gopesh Srivastava, Iain A. Borthwick, John D. Brooker, John C. Wallace, Brian K. May, and William H. Elliott	344
Phosphorylation of the α -Chain of Fibrinogen by a Platelet Kinase Activity Enhanced by Interferon	
Bernard Krust, Julien Galabru, and Ara G. Hovanessian	350
ERRATA	
Volume 115, Number 3, September 30, 1983: Thelma C. Madhok and Benjamin S. Leung, "Characterization of Uterine Estrogen Receptors by Size-Exclusion and Ion-Exchange High-Performance Liquid Chromatography," pp. 988–994	358
Volume 116, Number 2, October 31, 1983: M. L. Elks, P. A. Watkins, V. C. Manganiello, J. Moss, E. Hewlett, and M. Vaughan, "Selective Regulation by Pertussis Toxin of Insulin-Induced Activation of Particulate cAMP Phosphodiesterase Activity in 3T3-L1 Adipocytes," pp. 593–598	358
Volume 117, Number 2, December 16, 1983	
AUTHOR INDEX, Volume 117, Number 2, December 16, 1983	ii
Epitope Specific Immunity Elicited by a Synthetic Streptococcal Antigen without Carrier or Adjuvant	
Michel Jolivet, Françoise Audibert, Edwin H. Beachey, André Tartar, Hélène Gras-Masse, and Louis Chedid	359
Identification of Dichloromethyl Carbene as a Metabolite of Carbon Tetrachloride	
Lance R. Pohl and John W. George	367
Calcium-Induced Proteolysis of Spectrin and Band 3 Protein in Rat Erythrocyte Membranes	
Harish C. Pant, Mridulika Virmani, and Paul E. Gallant	372
Specific Binding of Alu Sequences by HeLa Nuclear Extracts	
Barbara Dunn, Michael Seidman, and Michael Bustin	378
The 1H -NMR Study of the Copper Surrounding in Plantacyanin	
M. A. Babayan, L. Kh. Sarkissian, A. M. Nersissian, E. G. Sarukhanian, R. M. Nalbandyan	385
Novel Method of Evaluating Biological 19-Hydroxylation and Aromatization of Androgens	
Shinichi Miyairi and Jack Fishman	392
Covalent Attachment of Insulin to the Outer Surface of Liposomes	
D. Cantenys, Y. Creach, L. Pradayrol, E. Hollande, and M. Massol	399
Bilirubin Diglucuronide Formation by Rat Liver Microsomes: Demonstration by Affinity and Thin-Layer Chromatography of Bile Pigment Tetrapyrroles	
H. Okuda, N. Tavoloni, C.-L. Kiang, M. J. T. Jones, and P. D. Berk	406
Isolation of an iC3b-Forming Enzyme from Peritoneal Polymorphonuclear Leukocytes of Guinea Pigs	
Tsukasa Seya and Shigeharu Nagasawa	413
Angiotensin II Receptors Negatively Coupled to Adenylate Cyclase in Rat Aorta	
Madhu B. Anand-Srivastava	420
The Metabolic Defect of Methionine Dependence Occurs Frequently in Human Tumor Cell Lines	
James O. Mechem, David Rowitch, C. Douglas Wallace, Peter H. Stern, and Robert M. Hoffman	429

Phosphorylation of Different Sites of Acetyl CoA Carboxylase by ATP-Citrate Lyase Kinase and Cyclic AMP-Dependent Protein Kinase	<i>Seethala Ramakrishna and William B. Benjamin</i>	435
Inhibition of the Calcium- and Phospholipid-Dependent Protein Kinase Activity from Mouse Brain Cytosol by Quercetin	<i>M. Gschwendt, F. Horn, W. Kittstein, and F. Marks</i>	444
Insulin Secretion: Combined Effects of Phorbol Ester and A23187	<i>Walter Zawalich, Charles Brown, and Howard Rasmussen</i>	448
Decreased Insulin Generation of Pyruvate Dehydrogenase Inhibitor in Insulin-Resistant States	<i>Najma Begum, Helen M. Tepperman, and Jay Tepperman</i>	456
Hydrodynamic Properties and Structure of the Rat Liver 12S-Arginyl- and Lysyl-tRNA Synthetase Complex	<i>Chuan V. Dang and Chi V. Dang</i>	464
Two Genetically Different MU-NANA Neuraminidases in Human Leucocytes	<i>F. W. Verheijen, H. C. Janse, O. P. van Diggelen, H. D. Bakker, M. C. B. Loonen, P. Durand, and H. Galjaard</i>	470
Improved Spectral Resolution in COSY ^1H -NMR Spectra of Proteins via Double Quantum Filtering	<i>M. Rance, O. W. Sørensen, G. Bodenhausen, G. Wagner, R. R. Ernst, and K. Wüthrich</i>	479
Combined Use of COSY and Double Quantum Two-Dimensional NMR Spectroscopy for Elucidation of Spin Systems in Polymyxin B	<i>Slobodan Macura, Narinder G. Kumar, and Larry R. Brown</i>	486
Modulation of Latent Protein Phosphatase Activity from Vascular Smooth Muscle by Histone H_1 and Polylysine	<i>Joseph DiSalvo, Etienne Waelkens, Donetta Gifford, Jozef Goris, and Wilfried Merlevede</i>	493
Histone H_1 -Stimulated Phosphorylase Phosphatase from Rabbit Skeletal Muscle	<i>Ronald L. Mellgren and Keith K. Schlender</i>	501
Paradoxical Stimulation by Amino Acids of the Degradation of [^{35}S]Methionine-Labelled, Short-Lived Protein in Isolated Rat Hepatocytes	<i>Per E. Schwarze and Per O. Seglen</i>	509
ESR Analysis of the FAD in Bovine Liver Monoamine Oxidase	<i>Anthony Tan, Morton D. Glantz, Lawrence H. Piette, and Kerry T. Yasunobu</i>	517
Selective Enhancement of the Induction of α -Lactalbumin Activity in Rat Mammary Explants by Epidermal Growth Factor	<i>Lakshmanan Sankaran and Yale J. Topper</i>	524
Reduction of Bisulfite by the Trithionate Pathway by Cell Extracts from <i>Desulfo-tomaculum nigrificans</i>	<i>J. M. Akagi</i>	530
Leucine Enkephalin Antagonizes Norepinephrine-Induced $^{45}\text{Ca}^{2+}$ Accumulation in Rat Atria	<i>James A. Ruth, Jon V. Cuizon, and Lee E. Eiden</i>	536
Evidence for the Metabolic Formation of a Vicinal Dihydrodiol Epoxide from the Potent Mutagen 1-Nitrobenzo(a)pyrene	<i>Ming W. Chou and Peter P. Fu</i>	541
Effect of Docosahexaenoic Acid (DHA) on Arachidonic Acid Metabolism and Platelet Function	<i>Gundu H. R. Rao, E. Radha, and James G. White</i>	549
Evolution of Cellular ATP Concentration after UV-Mediated Induction of SOS System in <i>Escherichia coli</i>	<i>J. Barbé, A. Villaverde, and R. Guerrero</i>	556
Dancylcadaverine Eliminates Calmodulin Stimulation of Phosphodiesterase	<i>Anders Sundan, Kirsten Sandvig, and Sjur Olsnes</i>	562
Adrenocorticotropin and β -Endorphin are Colocalized in the Nervous System of Rat Duodenum	<i>Hermann J. Wolter</i>	568
Determination of SRS-A Release from Guinea Pig Lungs by a Radioimmunoassay	<i>David Aharony, Paul Dobson, Peter R. Bernstein, Edward J. Kusner, Robert D. Krell, and J. Bryan Smith</i>	574
Purified DNA Polymerase γ Replicates Bovine Parvovirus DNA to a Unit-Length Product	<i>Alice T. Robertson, Robert C. Bates, and Ernest R. Sjöut</i>	580
A New Immunoglobulin Marker	<i>Tomotaka Shinoda, Kazunori Yoshimura, Fuyuki Kametani, and Takashi Isobe</i>	587
ω 6-Oxygenation of 6,9,12-Octadecatrienoic Acid in Human Platelets	<i>Mats Hamberg</i>	593
Nucleotide Sequence of a cDNA Clone for Human Aldolase B	<i>Claude Besmond, Jean-Claude Dreyfus, Claudine Gregori, Monique Frain, Mario M. Zakin, José Sala Trepast, and Axel Kahn</i>	601

A New cAMP-Independent Protein Kinase Tightly Bound to DNA in Rat Liver Nuclei	<i>Florence Levy-Favatier, Marc Delpech, and Jacques Kruh</i>	610
Structural Specificity of the Triamines sym-Homospermidine and Aminopropylcadaverine in Stimulating Growth of Spermidine Auxotrophs of <i>Escherichia coli</i>	<i>Nora Linderoth and David R. Morris</i>	616
Isolation and Partial Characterization of Human T-Cell Growth Factor	<i>Peter Böhlen, Frederick Esch, Donald Wegemer, Peter Salk, and Gunther Dennert</i>	623
Phosphorylation of Fibrinogen by Casein Kinase I	<i>E. Itarte, M. Plana, M. D. Guasch, and C. Martos</i>	631
Ca ²⁺ -Dependent Stimulation of Hexose Transport by A23187, 12-O-Tetradecanoylphorbol-13-acetate and Epidermal Growth Factor in Mouse Fibroblasts	<i>Kiyofumi Yamanishi, Hoyoku Nishino, and Akio Iwashima</i>	637
Purification and Properties of Microvitellogenin of <i>Manduca sexta</i> : Role of Juvenile Hormone in Appearance and Uptake	<i>John K. Kawooya and John H. Law</i>	643

ERRATUM

Volume 115, Number 2, September 15, 1983: Robert Brasseur, Joëlle De Meutter, Erik Goormaghtigh, and Jean-Marie Ruyschaert, "Mode of Organization of Galactolipids: A Conformational Analysis," pp. 666-672	651
---	-----

Volume 117, Number 3, December 28, 1983

AUTHOR INDEX, Volume 117, Number 3, December 28, 1983	ii
Effects of 2-[5-(4-Chlorophenyl) pentyl]oxirane-2-carboxylate on Fatty Acid and Glucose Metabolism in Perfused Rat Hearts Determined Using 16-[¹²⁵ I]Iodoheptadecanoate	<i>H. S. A. Sherratt, S. J. Gatley, T. R. DeGrado, C. K. Ng, and J. E. Holden</i> 653
Exogenous Methionine Depresses Level of mRNA for a Soybean Storage Protein	<i>Gary L. Creason, Lorraine P. Holowach, John F. Thompson, and James T. Madison</i> 658
Elevation of Cytoplasmic Free Calcium Concentration by Stable Thromboxane A ₂ Analog in Human Platelets	<i>Yasuhiro Kawahara, Junji Yamanishi, Yutaka Furuta, Kozo Kaibuchi, Yoshimi Takai, and Hisashi Fukuzaki</i> 663
Evidence for a Membrane Sulfhydryl Associated with Resistance to Melphalan in a Murine L1210 Leukemia Line	<i>J. M. Fisher, A. S. Naujokaitis, Y. Uehara, and M. Rabinovitz</i> 670
Multiple Electrophoretic Variants of Cu,Zn Superoxide Dismutase as Expression of the Enzyme Aging: Effects of H ₂ O ₂ , Ascorbate, and Metal Ions	<i>Irene Mavelli, Maria Rosa Ciriolo, and Giuseppe Rotilio</i> 677
Phosphorylation Pattern of a 25-kDalton Stress Protein from Rat Myoblasts	<i>Young-June Kim, Jon Shuman, Margaret Sette, and Alan Przybyla</i> 682
Spin-Label Studies on Synaptosomal Membranes of Rat Brain Cortex during Aging	<i>Katalin Nagy, Pál Simon, and Imre Zs.-Nagy</i> 688
Leumorphin Is a Novel Endogenous Opioid Peptide Derived from Preproenkephalin B	<i>Kazuwa Nakao, Mitsuaki Suda, Makoto Sakamoto, Takaaki Yoshimasa, Narito Morii, Yoshio Ikeda, Chizuko Yanaihara, Noboru Yanaihara, Shosaku Numa, and Hiroo Imura</i> 695
Evidence for Sterol Carrier Protein ₂ -Like Activity in Hepatic, Adrenal, and Ovarian Cytosol	<i>R. Chanderbhan, T. Tanaka, J. F. Strauss, D. Irwin, B. J. Noland, T. J. Scallen, and G. V. Vahouny</i> 702
Concerted Stimulation of PI Turnover, Ca ²⁺ Influx, and Histamine Release in Antigen-Activated Rat Mast Cells	<i>Yasuhiro Ishizuka and Yoshinori Nozawa</i> 710
Opiate Binding Sites and Endogenous Opioids in <i>Bufo viridis</i> Oocytes	<i>G. Ya. Bakalkin, T. V. Yakovleva, L. A. Nikitina, N. V. Korobov, V. A. Vinogradov, and M. I. Titov</i> 718
Comparison of the Substrate Conformations in the Active Sites of Papain, Chymopapain, Ficin, and Bromelain by Resonance Raman Spectroscopy	<i>P. R. Carey, Y. Ozaki, and A. C. Storer</i> 725

2-Nor-leukotriene Analogs: Antagonists of the Airway and Vascular Smooth Muscle Effects of Leukotriene C ₄ , D ₄ , and E ₄	John G. Gleason, Thomas W. Ku, Mary E. McCarthy, Barry M. Weichman, David Holden, Ruth R. Osborn, B. Zabko-Potapovich, Barry Berkowitz, and Martin A. Wasserman	732
A Characteristic Electrophoretic Pattern of Cytosolic Polypeptides from Hepatocyte Nodules Generated during Liver Carcinogenesis in Several Models	L. C. Eriksson, R. N. Sharma, M. W. Roomi, R. K. Ho, E. Farber, and R. K. Murray	740
Changes in Tissue Concentration of Prostaglandins during Endochondral Bone Differentiation	S. Wientroub, L. M. Wahl, N. Feuerstein, C. C. Winter, and A. H. Reddi	746
Evidence for Different Forms of Rat Liver Fructose 1,6-Bisphosphatase	Molly M. McGrane, M. Raafat El-Maghrabi, and Simon J. Pilakis	751
Insulin Stimulates Phosphorylation of a Heat-Stable Protein in Rat Adipose Tissue	Seethala Ramakrishna and William B. Benjamin	758
Matrix GLA Protein, a New γ -Carboxyglutamic Acid-Containing Protein Which Is Associated with the Organic Matrix of Bone	Paul A. Price, Marshall R. Urist, and Yoko Otawara	765
Isolation and Characterization of the Bovine Hypothalamic Growth Hormone Releasing Factor	Frederick Esch, Peter Böhlen, Nicholas Ling, Paul Brazeau, and Roger Guillemin	772
Agonist-Specific Desensitization of Leukotriene C ₄ -Stimulated PGI ₂ Biosynthesis in Human Endothelial Cells	Christopher W. Benjamin, Nancy K. Hopkins, Thomas D. Oglesby, and Robert R. Gorman	780
Correlation of H ₂ O ₂ Production and Liver Catalase during Riboflavin Deficiency and Repletion in Mammals	Sang-Sun Lee, Jianhong Ye, Dean P. Jones, and Donald B. McCormick	788
Streptozotocin-Induced Diabetes Decreases the Cyclic AMP Binding Activity of the Regulatory Subunit of Type I cAMP-Dependent Protein Kinase from Rat Liver	Ashok K. Srivastava	794
Stimulation of Prothrombinase Activity of Platelets and Erythrocytes by Sublytic Treatment with Phospholipase C from <i>Clostridium welchii</i>	Paul Comfurius, Edouard M. Bevers, and Robert F. A. Zwaal	803
Linoleate Incorporation into Rat Liver Membrane Phospholipids: Effect on Plasma Membrane ATPase Activities and Physical Properties	Michelyne Breton, Claude Wolf, and Odile Colard	809
Interaction between Histone H1 and Nonhistone HMG14 Detected by Chemical Crosslinking	E. Espel, J. Bernués, E. Querol, P. Martínez, A. Barris, and J. Lloberas	817
Characterization of Insulin Binding to the Erythroleukemia Cell Line K 562	Tang Xin-Zhi, Michael Tally, Mikael Jondal, and Kerstin Hall	823
Rapid Purification of Plasmid DNA by a Single Centrifugation in a Two-Step Cesium Chloride-Ethidium Bromide Gradient	S. J. Garger, O. M. Griffith, and L. K. Grill	835
Tyrosine Phosphorylation in Human T Lymphoma Cells	Gérard Gacon, Jean-Pierre Piau, Christine Blaineau, Remi Fagard, Noelle Genetet, and Siegmund Fischer	843
The Importance of Serum Lipoproteins in the Cytolytic Action of 7 β -Hydroxy-cholesterol on Cultured Hepatoma Cells	Lysiane Richert, Christian Bergmann, Jean-Paul Beck, Shihong Rong, Bang Luu, and Guy Ourisson	851
The Amino Acid Sequence of an Atrial Peptide with Potent Diuretic and Natriuretic Properties	T. Geoffrey Flynn, Mercedes de Bold, and Adolfo J. de Bold	859
Antibodies to a Synthetic Peptide Corresponding to the N-Terminal End of Mouse Gamma Interferon (IFN γ)	Marlyn P. Langford, Patrick W. Gray, G. John Stanton, Bala Lakhchaura, Teh-sheng Chan, and Howard M. Johnson	866
The Human Hypothalamic LHRH Precursor Is the Same Size as That in Rat and Mouse Hypothalamus	Ann Curtis, Valerie Lyons, and George Fink	872
Further Characterization of the Glucocorticoid-Induced Antiphospholipase Protein "Renocortin"	B. Rothhut, F. Russo-Marie, J. Wood, M. DiRosa, and R. J. Flower	878

Dephosphorylation of the Hepatic Insulin Receptor: Absence of Intrinsic Phosphatase Activity in Purified Receptors	<i>Aline Kowalski, Hélène Gazzano, Max Fehlmann, and Emmanuel Van Obberghen</i>	885
Inactivation of Tyrosine Hydroxylase by Reduced Pterins	<i>Donald M. Kuhn and Walter Lovenberg</i>	894
Superoxide-Dependent Lipid Peroxidation: Problems with the Use of Catalase as a Specific Probe for Fenton-Derived Hydroxyl Radicals	<i>John M. C. Gutteridge, Alistair P. C. Beard, and Gregory J. Quinlan</i>	901
Antibody Responses Elicited by a Polyvalent Vaccine Containing Synthetic Diphtheric, Streptococcal, and Hepatitis Peptides Coupled to the Same Carrier	<i>Louis Chedid, Michel Jolivet, Françoise Audibert, Grzegorz Przewlocki, Edwin H. Beachey, Hélène Gras-Masse, and André Tartar</i>	908
Nucleotide Sequence Cleavage of Guanine-Modified DNA with Aflatoxin B ₁ , Dimethyl Sulfate, and Mitomycin C by Bleomycin and Deoxyribonuclease I	<i>Tadashi Suzuki, June Kuwahara, and Yukio Sugiura</i>	916
Enzymatically Generated Electronically Excited Molecules Induce Transformation of 4-Thiouridine to Uridine	<i>Nelson Durán, Maria C. Marcucci, Maricilda P. De Mello, and Adelaide Faljoni-Alario</i>	923

ERRATUM

Volume 116, Number 2, October 31, 1983: John W. Ho and Jui H. Wang, "Identification of the Initially NBD-Labeled Essential Tyrosine Residue in Bovine Heart MF ₁ -ATPase," pp. 599-604.	930
Author Index for Volume 117	931
The Subject Index for Volume 117 will appear as part of a cumulative subject index for the year 1983.	

